

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2011; month=5; day=26; hr=9; min=25; sec=43; ms=934;]

=====

Application No: 10572740 Version No: 1.0

Input Set:

Output Set:

Started: 2011-05-26 09:10:17.473
Finished: 2011-05-26 09:10:35.518
Elapsed: 0 hr(s) 0 min(s) 18 sec(s) 45 ms
Total Warnings: 409
Total Errors: 0
No. of SeqIDs Defined: 409
Actual SeqID Count: 409

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2011-05-26 09:10:17.473
Finished: 2011-05-26 09:10:35.518
Elapsed: 0 hr(s) 0 min(s) 18 sec(s) 45 ms
Total Warnings: 409
Total Errors: 0
No. of SeqIDs Defined: 409
Actual SeqID Count: 409

Error code	Error Description
	This error has occurred more than 20 times, will not be displayed

<110> APPLICANT: Micromet AG
<120> TITLE OF INVENTION: Multispecific deimmunized CD3 binders
<130> FILE REFERENCE: G 2728 PCT

<140> CURRENT APPLICATION NUMBER:10572740
<141> CURRENT FILING DATE:2011-05-26
<160> NUMBER OF SEQ ID NOS: 409
<170> SOFTWARE: PatentIn version 3.1

<210> SEQ ID NO 1
<211> LENGTH: 729
<212> TYPE: DNA
<213> ORGANISM: artificial sequence
<220> FEATURE:
<223> OTHER INFORMATION: wt Anti-CD3 cassette
<400> SEQUENCE: 1
gatatcaaac tgcagcagtc aggggctgaa ctggcaagac ctggggcctc agtgaagatg 60
tcctgcaaga cttctggcta caccttact aggtacacga tgcactgggt aaaacagagg 120
cctggacagg gtctggaatg gattggatac attaatccta gccgtggta tactaattac 180
aatcagaagt tcaaggacaa ggccacattg actacagaca aatccctccag cacagcctac 240
atgcaactga gcagcctgac atctgaggac tctgcagtc attactgtgc aagatattat 300
gatgatcatt actgccttga ctactgggc caaggcacca ctctcacagt ctccctcagtc 360
gaaggtggaa gtggagggttc tggtggaaatg ggaggttcag gtggagtgcg cgacattcag 420
ctgacccttgt ctccagcaat catgtctgca tctccaggaa agaaggtcac catgacctgc 480
agagccagtt caagtgtaaat ttacatgaac tggtaccagc agaagtcagg cacctcccc 540
aaaagatgga ttatgacac atccaaagtg gcttctggag tcccttatcg cttcagtgcc 600
agtgggtctg ggacctata ctctctcaca atcagcagca tggaggctga agatgctgcc 660
acttattact gccaacagtg gagtagtaac ccgctcacgt tcggtgctgg gaccaagctg 720
gagctgaaa 729

<210> SEQ ID NO 2
<211> LENGTH: 243
<212> TYPE: PRT
<213> ORGANISM: artificial sequence
<220> FEATURE:
<223> OTHER INFORMATION: wt Anti-CD3 cassette
<400> SEQUENCE: 2
Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
1 5 10 15
Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr
20 25 30
Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe
50 55 60
Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80
Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Thr Leu Thr Val Ser Ser Val Glu Gly Gly Ser Gly Gly Ser Gly
115 120 125
Gly Ser Gly Gly Ser Gly Gly Val Asp Asp Ile Gln Leu Thr Gln Ser
130 135 140
Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys
145 150 155 160

Arg	Ala	Ser	Ser	Ser	Val	Ser	Tyr	Met	Asn	Trp	Tyr	Gln	Gln	Lys	Ser
					165				170					175	
Gly	Thr	Ser	Pro	Lys	Arg	Trp	Ile	Tyr	Asp	Thr	Ser	Lys	Val	Ala	Ser
					180				185					190	
Gly	Val	Pro	Tyr	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Ser	Tyr	Ser
					195				200					205	
Leu	Thr	Ile	Ser	Ser	Met	Glu	Ala	Glu	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys
					210				215					220	
Gln	Gln	Trp	Ser	Ser	Asn	Pro	Leu	Thr	Phe	Gly	Ala	Gly	Thr	Lys	Leu
					225				230					235	
														240	
															Glu Leu Lys

<210> SEQ ID NO 3
<211> LENGTH: 18
<212> TYPE: PRT
<213> ORGANISM: artificial sequence
<220> FEATURE:
<223> OTHER INFORMATION: deimmunized linker
<400> SEQUENCE: 3

Gly	Glu	Gly	Thr	Ser	Thr	Gly	Ser	Gly	Gly	Ser	Gly	Gly			
1			5				10				15				
															Ala Asp

<210> SEQ ID NO 4
<211> LENGTH: 729
<212> TYPE: DNA
<213> ORGANISM: artificial sequence
<220> FEATURE:
<223> OTHER INFORMATION: VH2/VL1
<400> SEQUENCE: 4

gacgtccaaac	tgggtgcagtc	aggggctgaa	gtgaaaaaac	ctggggcctc	agtgaaggta									60	
tccgtcaagg	tttctggcta	caccgctact	aggcacacga	tgcactgggt	aaggcaggca									120	
cctggacagg	gtcttggaaatg	gattggatac	attaatccta	gccgtggta	tactaattac									180	
gcacagaagt	tgcaggggccg	cgtcacaatg	actacagaca	cttccaccag	cacagcctac									240	
atggaactga	gcagcctgcg	ttctgaggac	actgcaacct	attactgtgc	aagatattat									300	
gatgatcatt	actgccttga	ctactgggc	caaggcacca	cggtcaccgt	ctcctcagcg									360	
gaaggtacta	gtactggttc	tgggtggaaatg	ggaggttcag	gtggagcaga	cgacatttag									420	
atgaccctgt	ctccatcttag	cctgtctgca	tctgtcgcccc	accgtgtcac	catcacctgc									480	
agagccagtc	aaagtgttaag	ttacatgaac	tggtaccacg	agaagccggg	caaggcaccc									540	
aaaagatgga	tttatgacac	atccaaagtg	gcttctggag	tccctgctcg	tttcagtggc									600	
agtgggtctg	ggaccgacta	ctctctcaca	atcaacagct	tggaggctga	agatgctgcc									660	
acttattact	gccaacagtg	gagtagtaac	ccgctcacgt	tcggtgccgg	gaccaaggta									720	
															729

<210> SEQ ID NO 5
<211> LENGTH: 243
<212> TYPE: PRT
<213> ORGANISM: artificial sequence
<220> FEATURE:
<223> OTHER INFORMATION: VH2/VL1
<400> SEQUENCE: 5

Asp	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1					5				10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Ala	Thr	Arg	Tyr
					20				25					30	
Thr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile
					35				40					45	

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Ala Gln Lys Leu
 50 55 60
 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Thr Tyr Tyr Cys
 85 90 95
 Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Gly Glu Gly Thr Ser Thr Gly Ser Gly
 115 120 125
 Gly Ser Gly Gly Ser Gly Ala Asp Asp Ile Gln Met Thr Gln Ser
 130 135 140
 Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys
 145 150 155 160
 Arg Ala Ser Gln Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro
 165 170 175
 Gly Lys Ala Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
 180 185 190
 Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Thr Asp Tyr Ser
 195 200 205
 Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
 210 215 220
 Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Gly Gly Thr Lys Val
 225 230 235 240
 Glu Ile Lys

<210> SEQ ID NO 6
 <211> LENGTH: 729
 <212> TYPE: DNA
 <213> ORGANISM: artificial sequence
 <220> FEATURE:
 <223> OTHER INFORMATION: VH2/VL2
 <400> SEQUENCE: 6

```

gacgtccaaac tgggtcagtc aggggctgaa gtggaaaaac ctggggcctc agtgaaggta 60
tcctgcagg cttctggcta caccgctact aggtacacga tgcaactgggt aaggcaggca 120
cctggacagg gtctggaatg gattggatac attaatccta gccgtggta tactaattac 180
gcacagaagt tgcaggggccg cgtcacaatg actacagaca cttccaccag cacagcctac 240
atggaactga gcagcctgcg ttctgaggac actgcaacct attactgtgc aagatattat 300
gatgatcatt actgccttga ctactgggc caaggcacca cggtcaccgt ctccctcaggc 360
gaaggtacta gtactggttc tggtggaagt ggagggttcag gtggagcaga cgacattgtta 420
ctgacccagt ctccagcaac tctgtctctg tctccagggg agcgtgccac cctgagctgc 480
agagccagtc aaagtgtaaat ttacatgaac tggtaccacg agaagccggg caaggcaccc 540
aaaagatgga tttatgacac atccaaagt gcttctggag tccctgctcg cttcagtggc 600
agtgggtctg ggaccgacta ctcttcaca atcaacagct tggaggctga agatgctgcc 660
acttattact gccaacagtg gagtagtaac ccgctcacgt tcggtgccgg gaccaaggtg 720
gagatcaaa 729
  
```

<210> SEQ ID NO 7
 <211> LENGTH: 243
 <212> TYPE: PRT
 <213> ORGANISM: artificial sequence
 <220> FEATURE:
 <223> OTHER INFORMATION: VH2/VL2
 <400> SEQUENCE: 7

```

Asp Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Ala Thr Arg Tyr
  
```

20	25	30
Thr	Met	His
Trp	Val	Arg
Gln	Ala	Pro
Gly	Gln	Gly
Leu	Glu	Trp
Ile		
35	40	45
Gly	Tyr	Ile
Asn	Pro	Ser
Arg	Gly	Tyr
Thr	Asn	Tyr
Ala	Gln	Lys
Leu		
50	55	60
Gln	Gly	Arg
Val	Thr	Met
Thr	Asp	Thr
Ser	Thr	Ser
Thr	Ala	Tyr
65	70	75
Met	Glu	Leu
Leu	Ser	Ser
Leu	Arg	Ser
Glu	Asp	Thr
Ala	Thr	Tyr
Tyr	Cys	
Asp	Asp	
His	Tyr	
Cys	Leu	
Leu	Asp	
Tyr	Trp	
Gly	Gln	
Gly		
100	105	110
Thr	Thr	Val
Thr	Val	Ser
Ser	Gly	Glu
Gly	Thr	Ser
Thr	Gly	Ser
115	120	125
Gly	Ser	Gly
Gly	Ser	Gly
Ala	Asp	Asp
Ile	Val	Leu
Thr	Thr	Gln
Gln	Ser	
130	135	140
Pro	Ala	Thr
Leu	Ser	Leu
Ser	Pro	Gly
Glu	Arg	Ala
Arg	Thr	Leu
Leu	Ser	Ser
145	150	155
Arg	Ala	Ser
Gln	Ser	Val
Ser	Tyr	Met
Val	Asn	Trp
Tyr	Tyr	Gln
Gln	Gln	Lys
165	170	175
Gly	Lys	Ala
Ala	Pro	Lys
Lys	Arg	Trp
Ile	Tyr	Asp
180	185	190
Gly	Val	Pro
Pro	Ala	Arg
Phe	Ser	Gly
Ser	Gly	Ser
Gly	Thr	Asp
195	200	205
Leu	Thr	Ile
Ile	Asn	Ser
Leu	Glu	Ala
Glu	Asp	Ala
Ala	Ala	Thr
Thr	Tyr	Tyr
Cys		
210	215	220
Gln	Gln	Trp
Trp	Ser	Ser
Asn	Pro	Leu
Leu	Thr	Phe
Phe	Gly	Gly
Gly	Gly	Thr
225	230	235
240		
Glu	Ile	Lys

<210> SEQ ID NO 8
<211> LENGTH: 729
<212> TYPE: DNA
<213> ORGANISM: artificial sequence
<220> FEATURE:
<223> OTHER INFORMATION: VH2/VL3
<400> SEQUENCE: 8

gacgtccaaac	tggtgagtc	aggggctgaa	gtgaaaaaac	ctggggcctc	agtgaaggta	60
tctcgcaagg	cttctggcta	caccgctact	aggtacacga	tgcactgggt	aaggcaggca	120
cctggacagg	gtctggaatg	gattggatac	attaatccta	gccgtggta	tactaattac	180
gcacagaagt	tgcagggccg	cgtcacaatg	actacagaca	cttccaccag	cacagcctac	240
atggaactga	gcagcctgcg	ttctgaggac	actgcaacct	attactgtgc	aagatattat	300
gatgatcatt	actgccttga	ctactgggc	caaggcacca	cggtaccgt	ctcctcaggc	360
gaaggtacta	gtactggttc	tggtggaaatg	ggaggttcag	gtggagcaga	cgacattgt	420
ctgaccctgt	ctccagcaac	tctgtctctg	tctccagggg	agcgtgccac	cctgacctgc	480
agagccagtt	caagtgtaa	ttacatgaac	tggtaccagc	agaagccggg	caagggcaccc	540
aaaagatgga	tttatgacac	atccaaagtg	gcttctggag	tccctgctcg	cttcagtgdc	600
agtgggtctg	ggaccgacta	ctctctcaca	atcaacagct	tggaggctga	agatgctgcc	660
acttattact	gccaacagtg	gagtagtaac	ccgctcacgt	tcggtgccgg	gaccaaggta	720
gagatcaaa						729

<210> SEQ ID NO 9
<211> LENGTH: 243
<212> TYPE: PRT
<213> ORGANISM: artificial sequence
<220> FEATURE:
<223> OTHER INFORMATION: VH2VL3
<400> SEQUENCE: 9

Asp Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Ala Thr Arg Tyr
 20 25 30
 Thr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Ala Gln Lys Leu
 50 55 60
 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Thr Tyr Tyr Cys
 85 90 95
 Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Gly Glu Gly Thr Ser Thr Gly Ser Gly
 115 120 125
 Gly Ser Gly Gly Ser Gly Gly Ala Asp Asp Ile Val Leu Thr Gln Ser
 130 135 140
 Pro Ala Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Thr Cys
 145 150 155 160
 Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro
 165 170 175
 Gly Lys Ala Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
 180 185 190
 Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Ser
 195 200 205
 Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
 210 215 220
 Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Gly Gly Thr Lys Val
 225 230 235 240
 Glu Ile Lys

<210> SEQ ID NO 10
 <211> LENGTH: 729
 <212> TYPE: DNA
 <213> ORGANISM: artificial sequence
 <220> FEATURE:
 <223> OTHER INFORMATION: VH3/VL1
 <400> SEQUENCE: 10

```

gacgtccaac tggtgcaagtc aggggctgaa gtgaaaaaac ctggggcctc agtgaaggta 60
tcctgcagg cttctggcta caccgctact aggtacacga tgcactgggt aaggcaggca 120
cctggacagg gtctggaatg gatggatac attaattccta gccgtggta tactaattac 180
gcacagaagt tgcagggccg cgtcacaatg actacagaca cttccaccag cacagcctac 240
ctgcaaatga acagcctgaa aactgaggac actgcagtttctt attactgtgc aagatattat 300
gatgatcatt actgccttga ctactgggc caaggcacca cggtcaccgt ctccctcaggc 360
gaaggtaacta gtactggttc tggtgaaatg ggagggttcag gtggagcaga cgacatttag 420
atgaccctgtt ctcctatcgat cttgtctgca tctgtcgaaa accgtgtcac catcacctgc 480
agagccagtc aaagtgtaaat ttacatgaac tggtaaccac agaagccggg caaggcaccc 540
aaaagatgga ttatgacac atccaaatgt gcttctggag tccctgctcg cttcagtggc 600
agtgggtctg ggaccgacta ctctctcaca atcaacagct tggaggctga agatgctgcc 660
acttattact gccaacagtg gagtagtaac ccgctcacgt tcggtgccgg gaccaagggtg 720
gagatcaaa 729
  
```

<210> SEQ ID NO 11
 <211> LENGTH: 243
 <212> TYPE: PRT
 <213> ORGANISM: artificial sequence

<220> FEATURE:

<223> OTHER INFORMATION: VH3/VL1

<400> SEQUENCE: 11

Asp Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Ala Thr Arg Tyr
20 25 30
Thr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Ala Gln Lys Leu
50 55 60
Gln Gly Arg Val Thr Met Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Thr Val Thr Val Ser Ser Gly Glu Gly Thr Ser Thr Gly Ser Gly
115 120 125
Gly Ser Gly Ser Gly Gly Ala Asp Asp Ile Gln Met Thr Gln Ser
130 135 140
Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys
145 150 155 160
Arg Ala Ser Gln Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro
165 170 175
Gly Lys Ala Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
180 185 190
Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Ser
195 200 205
Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
210 215 220
Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Gly Gly Thr Lys Val
225 230 235 240
Glu Ile Lys

<210> SEQ ID NO 12

<211> LENGTH: 729

<212> TYPE: DNA

<213> ORGANISM: artificial sequence

<220> FEATURE:

<223> OTHER INFORMATION: VH3/VL2

<400> SEQUENCE: 12

gacgtccaaac tggtgcagtc aggggctgaa gtgaaaaaac ctggggcctc agtgaaggta 60
tcctgcagg cttctggcta caccgctact aggtacacga tgcactgggt aaggcaggca 120
cctggacagg gtctggaatg gattggatac attaatccta gccgtggta tactaattac 180
gcacagaag